

Serial No.: 10/762,592
Conf. No.: 3018

- 2 -

Art Unit: 2815

In the Drawings

A "Replacement Sheet" is attached which includes a clean version of amended Figures 1A and 1B. The attached sheet replaces the original sheet including Figures 1A and 1B. Figures 1A and 1B have been amended to include the legend –Prior Art-, as requested in the Office Action.

REMARKS

In response to the Final Office Action mailed September 6, 2005, Applicants respectfully request reconsideration. Claims 1-42 were previously pending in this application. Claims 1, 2, 3, 15, 17, 18, 28, 29, 30, 32 and 33 have been amended. New claims 43-61 have been added to more fully define Applicants' contribution to the art. As a result, claims 1-61 are pending for examination with claims 1, 15, 30 and 43 being independent claims. No new matter has been added.

Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter in claims 6-11, 19-29, and 32-42.

Objections to the Drawings

The Office Action objected to the drawings because Figures 1A and 1B did not include the legend "prior art." Figures 1A and 1B have been amended to include the legend "prior art."

Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. §112

The Office Action rejected claims 2, 3 and 12-14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention.

The Office Action rejected claim 2 as being purportedly indefinite because it was not understood how the contacts and conductive fingers are structurally disposed in the component. Claim 2 has been amended for clarity.

The Office Action rejected claim 3 because the limitation "the conductive fingers" lacked antecedent basis. Claim 3 has been amended to depend from claim 2 instead of claim 1. The term "the conductive fingers" in claim 3 now has sufficient antecedent basis.

The Office Action rejected claims 12-14 because there was purportedly insufficient antecedent basis for the limitation "IGBT transistor" because claim 1 does not mention an IGBT.

Applicants respectfully point out that claims 12-14 depend from claim 8. Claim 8 recites, *inter alia*, an “IGBT transistor.” Therefore, the limitation “IGBT transistor” in claims 12-14 has sufficient antecedent basis in claim 8.

Accordingly, withdrawal of these rejections is respectfully requested.

Rejections under 35 U.S.C. §102

The Office Action rejected claims 1-5, 15-18 and 30-33 under 35 U.S.C. §102(e) as being anticipated by Disney (U.S. Patent No. 6,781,198 B2). Applicants respectfully traverse this rejection.

Disney is directed to a vertical transistor having source regions 27 and body regions 26. As shown in FIG. 1, source regions 27 and body regions 26 do not extend substantially across the entire thickness of the semiconductor chip, but rather are situated near the surface of the semiconductor chip under the gate 30. A field plate 24 extends through the substrate and separates the transistors. Field plate 24 does not make contact with a semiconductor region, but rather is surrounded by an oxide layer 28B. In operation, current flows through the transistor vertically between the source electrode 32 and the drain electrode 31 (Col. 4, lines 12-24).

By contrast, claim 1 as amended recites: A MOS-type power component in which each of the regions constitutive of the component extend perpendicularly to a surface of a semiconductor chip substantially across an entire thickness thereof. Disney does not teach or suggest a MOS-type power component in which each of the regions constitutive of the component extend perpendicularly to a surface of a semiconductor chip substantially across an entire thickness thereof. Therefore, claim 1 patentably distinguishes over Disney. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-14 depend from claim 1 and are therefore patentable for at least the same reasons.

Claim 15, as amended recites: A MOS-type power component comprising a substrate, semiconductor regions extending through the substrate, and contacts extending through the substrate and contacting the semiconductor regions within the substrate. Claim 15 patentably distinguishes over Disney because Disney does not teach or suggest contacts extending through

the substrate and contacting the semiconductor regions within the substrate. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 16-29 depend from claim 15 and are therefore patentable for at least the same reasons.

Claim 30, as amended recites, *inter alia*: A MOS-type power component in which ... contacts with the semiconductor regions are made substantially across the entire thickness of the semiconductor chip. Claim 30 patentably distinguishes over Disney because Disney does not teach or suggest a MOS-type power component in which contacts with the semiconductor regions are made substantially across the entire thickness of the semiconductor chip. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 31-42 depend from claim 30 are therefore patentable for at least the same reasons.

New Claims

New claim 43 recites:

A MOS-type power component, comprising:
a substrate having a first main surface; and
a first region and a second region disposed within the substrate such that current flows from the first region to the second region throughout substantially an entire thickness of the substrate, wherein current flow in the first region is substantially parallel to the first main surface.

Claim 43 patentably distinguishes over Disney because Disney does not teach or suggest a first region and a second region disposed within the substrate such that current flows from the first region to the second region throughout substantially an entire thickness of the substrate.

Claims 44-61 depend from claim 43 and are therefore patentable for at least the same reasons.

Serial No.: 10/762,592
Conf. No.: 3018

- 17 -

Art Unit: 2815

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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Docket No.: S1022.81119US00
Date: January 6, 2006
x01/06/06x